

Work Order ID 60984



Page 1

August 3, 2010 2:54:28 PM

Item ID: D350-636-011

Accept



Setup Start



Revision ID:

Stop



Item Name: Skidtube LH

Start Date: 8/03/10 Start Qty: 1.00



Cust Item ID:

Required Date: 8/12/10 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan: *[Signature]*

Date: 10-8-03

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr

Revision Nbr

D2750

Rev F

100

0.00



DOCUMENT CONTROL

DC

Memo

0.00

Document Control

Photocopy blue file and type labels per PPP D350-636-011 CHG 005

8/10/08/19

H for CL 10/08/19

60984

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
110 	Skidtubes	0.00							
Skidtubes	Memo	0.00							
Skidtubes	1- Pick D2600-3 Bent								
	2- Deburr FWD and AFT ends, remove bending marks. Scribe batch# inside AFT end per dwg D2750								
	3- Drill pilot holes for blade fitting bolt holes using DT8983. Open to 0.500", deburr.								
	4- Locate DT8330 off of blade fitting bolt holes and drill pilot holes for blade fitting								
	5- Drill fwd step holes using DT9616. Ensure proper positioning.								
	6- Drill pilot holes as per Dwg D2750 sheet 4 (D2750-1 details). Drill using drill Jig DT8150 & DT8863A for first side only DT8863B for second side (detail B) ***ONLY DRILL ONE SIDE OF FWD SADDLE HOLES USING DT8150***								
	7- Clecko DT8863B on second side of tube and drill pilot holes for detail B. ***SECOND SIDE***								
	8- Clecko DT9642 and drill fwd saddle holes on second side, ensure proper positioning.								
	9- Open up holes for Detail B to 0.375" (4 holes per side) and blade fitting location holes to 0.500" (total of 4 holes per side) as per dwg D2750. Open up holes for ground handling and detail C to 0.500" (8 holes per side)								
	10- Drill pilot holes for wearplates as per Dwg D2750 using DT8108 open to								

MS
10-08-09

DP

10-8-10

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Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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0.297".

11-Open up holes of Detail A to 0.297" (total of 2 holes per side)

12-Weld D2744 Cap as per Dwg D2750 and QSI 004.Fill grooves in bend left from bending as per QSI 004

A/R Aluminum Rod batch: ☐

13-Grind welds flush as per Dwg D2750

> DP

10-8-10

M114242 BE 10/08/10
BE 10/08/10

120



QC

Quality Control

QC10- Inspect visual per QSI004- ground welds

0.00

Memo

0.00

S 10/08/10

130



QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

Memo

0.00

S 10/08/10

46

W/O:		WORK ORDER CHANGES					
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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
140 HandFinish Hand Finishing	Chemical Conversion Coat per QSI005 4.1 Memo	0.00 0.00		10-8-11					
150 QC Quality Control	QC3- Inspect Part Finish Memo	0.00 0.00				BE		10-08-11	

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Run Start



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160 	Skidtubes	0.00							
Skidtubes	Memo	0.00							
Skidtubes	1-Open up holes of Detail C and ground handling to 0.625" (total of 8 holes per side) as per dwg D2750.								
	2-Open up holes of Detail B to 0.750" (total of 4 holes per side) as per dwg D2750.								
	3- Open float hole to 0.500" (4 per side)								
	4-Chamfer holes of Detail B, C, ground handling and float holes per dwg D2750 (welding instructions on sheet 8)								
	5-Deburr and blow out all chips from inside of tube								
	6- Prepare tube for welding, remove alodine as required.								
	7-Bond web D2739 in place as per QSI 015 A/R <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Sikaflex-291 batch: <u>M115114</u> exp. date: <u>11-1-30</u>								
	8- Weld spacers D3490-1, D3490-3 and D2743 as per dwg D2750 & QSI004 (welding instructions on sheet 8) A/R <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Aluminum Rod batch: <u>M114877</u>								
	9- At section AJ-AJ drill out x-bolt spacer to 0.404"								
	10-Grind welds flush as per Dwg D2750								



10-8-11

BE 10/08/16
BE 10/08/16
BE 10/08/17

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Customer:

Reference:

Run Start



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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11-Spot face ground handling holes section (total of 4 places per side) as per
dwg D2750

BE 10/08/17

12-Deburr holes

BE 10/08/17

170

QC10- Inspect visual per QSI004- ground welds

0.00



QC

Memo

0.00

Quality Control

180

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

8/10/08/17

8/10/08/17

(40)

W/O:		WORK ORDER CHANGES					
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Required Date: 8/12/10 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
190 HandFinish	Pressure Wash per QSI005 4.3	0.00				ml	10	08	17 ①
Hand Finishing	Memo Re-alodine tube as per QSI 005 section 4.1.2.1 do not acid etch.	0.00							
200 Powdercoat	White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum	0.00				ml	10	08	18 ①
Powder Coating	Memo START TIME: 7:00 OVEN TEMPERATURE: 320° FINISH TIME: 7:30	0.00							
210 QC	QC3- Inspect Part Finish	0.00							
Quality Control	Memo Inspect for foreign object per QSI 024	0.00							

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Customer:

Reference:

Run Start



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

220

0.00



HandFinishing

HandFinish

Memo

0.00

=> M1 10/08/19

x1

0

Hand Finishing

1- Install inserts as per Dwg D2750

230

0.00



HandFinishing

HandFinish

Memo

0.00

=> M1 10/08/19

x1

0

Hand Finishing

✓ 1-Inspect for Foreign Objects

✓ 2-Spray inside of tube with "LPS-3" batch: N/A

✓ 3-Install blade fitting D3488-041, wearshoes and ground handling hardware as per dwg D2750

SIKA FLEX 241

BATCH: 14115114

EXP DATE: 11/01

✓ 4-assemble o-ring to plug as per dwg D3492 and apply o-ring lube

A/R 55-o-ring lube batch: 14114189

✓ 5-Coat all exposed fasteners with "LPS Procyon" batch: 14114596

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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
240	QC5- Inspect part completeness to step on W/O	0.00							
QC	Memo	0.00							
Quality Control									
250	Pick Kit	0.00							
Packaging	Memo	0.00							
Packaging									
260	QC4- 100% Inspect kits for completeness	0.00							
QC	Memo	0.00							
Quality Control	*****ensure antiseize is on AN8C21A bolts*****								

m 10 08 19 ①

10/8/19 sf

②

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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
270		0.00							
	Packaging								
Packaging	Memo	0.00							
Packaging	Package as per PPP D350-636-011	Loc #2		LEO #					
280		0.00							
	QC21- Final Inspection - Work Order Release								
QC	Memo	0.00							
Quality Control									

10/8/19 SL

10/08/19 HJ
mf 10-8-19

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Picklist Print

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Parent Item: D350-636-011

Parent Item Name: Skidtube LH




Start Date: 8/03/10

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Start Qty: 1.00

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Comments: IPP Rev: I 02.09.25 Rearranged procedure steps KJ
 IPP Rev: J 06-03-23 As per Rev D JLM
 IPP Rev: K 06-07.13 As per dsi9343 EC
 IPP Rev: L 07-07-28 Added SS Wearplates(Rev E) JLM Verified By: EC
 IPP Rev: M 08-04-22 update steps 4, 13 DD verified by: EC
 IPP Rev: N 08-09-23 revF as per dwg DD verified by: ec
 IPP Rev: O 09-02-06 apply antiseize on AN8C21A bolts as per PAR09-010
 DD verified by: EC IPP Rev: P 10.06.22
 revise seq110 DD verf: EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status															
D2594-3  O-Ring, 205 Skidtube		Manufactured	No			230	Each	379.0000	8	8																		
<table><tr><th>Location</th><th>Loc Qty</th><th>Loc Code</th></tr><tr><td>FP</td><td>379</td><td></td></tr><tr><td>55546</td><td>19</td><td></td></tr><tr><td>58191</td><td>12</td><td></td></tr><tr><td>59358</td><td>348</td><td></td></tr></table>														Location	Loc Qty	Loc Code	FP	379		55546	19		58191	12		59358	348	
Location	Loc Qty	Loc Code																										
FP	379																											
55546	19																											
58191	12																											
59358	348																											
D2744  Cap		Manufactured	No			110	Each	38.0000	1	1																		
<table><tr><th>Location</th><th>Loc Qty</th><th>Loc Code</th></tr><tr><td>LG</td><td>38</td><td></td></tr><tr><td>51922</td><td>2</td><td></td></tr><tr><td>59198</td><td>36</td><td></td></tr></table>														Location	Loc Qty	Loc Code	LG	38		51922	2		59198	36				
Location	Loc Qty	Loc Code																										
LG	38																											
51922	2																											
59198	36																											
D2600-3-BENT  Extrusion Bent		Manufactured	No			110	Each	16.0000	1	1																		

28 10/08/10

BE 10/08/10

MB 10-08-09

IX

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Parent Item: D350-636-011

Parent Item Name: Skidtube LH

Start Date: 8/03/10

Required Date: 8/12/10

Start Qty: 1.00

Required Qty: 1.00

D2743 Manufactured No 160 Each 299.0000 8 8



Crossbolt Spacer

Location	Loc Qty	Loc Code
LG	299	
50281	10	
57953	2	
59111	287	

D2739 Manufactured No 160 Each 1.0000 1 1



350 I Beam

Location	Loc Qty	Loc Code
LG	1	
B61257	1	
59406	1	

D3490-3 Manufactured No 160 Each 54.0000 4 4



Cross Bolt Spacer

Location	Loc Qty	Loc Code
LG	54	
59229	14	
60294	40	

D3490-1 Manufactured No 160 Each 19.0000 4 4



Cross Bolt Spacer

Location	Loc Qty	Loc Code
LG	19	
59424	19	

B61217 4 BE10-8-16

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Start Date: 8/03/10

Required Date: 8/12/10

Start Qty: 1.00

Required Qty: 1.00

ALS4-1032-225 Purchased No 220 Each 5,957.000 38 38



Insert

Location

Loc Qty

Loc Code

PK011

5957

110768

5957

D3492-041 Manufactured No

230 Each 93.0000 8 8



Plug Assembly

Location

Loc Qty

Loc Code

FP013

93

59114

24

59420

69

D3793-3 Manufactured No

230 Each 13.0000 1 1



Wearshoe

Location

Loc Qty

Loc Code

FP18

12

59631

12

FP19

1

57947

1

AN8C35A Purchased No

230 Each 58.0000 1 1



BOLT

Location

Loc Qty

Loc Code

FP

1

110847

1

ST346

57

114442

27

115188

30

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Shop Packet Print

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Start Date: 8/03/10

Required Date: 8/12/10

Start Qty: 1.00

Required Qty: 1.00

D3793-1

Manufactured No

230

Each

15.0000

1

1



Wearshoe

Location

Loc Qty

Loc Code

FP18

15

59151

2

59630

13

Manufactured No

230

Each

18.0000

1

1

D3488-041



Blade Fitting Assembly, LH

Location

Loc Qty

Loc Code

FP

11

53915

11

FP007

7

56052

7

Manufactured No

230

Each

24.0000

1

1

D3794-3



Gasket

Location

Loc Qty

Loc Code

FP10

12

60826

12

FP18

12

56066

11

59153

1

August 3, 2010 2:54:33 PM

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Page 4

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

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Work Order ID: 60984

Parent Item: D350-636-011

Parent Item Name: Skidtube LH

Start Date: 8/03/10

Required Date: 8/12/10

Start Qty: 1.00

Required Qty: 1.00

AN6C44A Purchased No 230 Each 177.0000 4 4



BOLT

Location Loc Qty Loc Code

FG	2	
103964	2	
ST344	175	
111649	2	
114653	1	
114784	47	
114941	75	
115030	50	

x1 M 10/08/10

MS21083C8 Purchased No 230 Each 58.0000 1 1



NUT

Location Loc Qty Loc Code

ST303	58	
113845	7	
114934	51	

x1 M 10/08/10

D3536-25 Manufactured No 230 Each 29.0000 1 1



Gasket

Location Loc Qty Loc Code

FP12	29	
58820	5	
59625	24	

x1 M 10/08/10

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Page 6

August 3, 2010 2:54:33 PM

Work Order ID: 60984

Parent Item: D350-636-011

Parent Item Name: Skidtube LH

Start Date: 8/03/10

Required Date: 8/12/10

Start Qty: 1.00

Required Qty: 1.00

D3631-1 Manufactured No 230 Each 571.0000 8 8
Washer

Location	Loc Qty	Loc Code
ST072	297	
60755	297	
ST076	274	
52693	206	
54388	68	

X8 24 10/08/10

D3791-1 Manufactured No 230 Each 20.0000 1 1
Wearplate

Location	Loc Qty	Loc Code
FP17	20	
58573	11	
59626	9	

X1 24 10/08/10

AN960C10L Purchased No 230 Each 29.0000 38 38
washer

NAS1149C0332

Location	Loc Qty	Loc Code
ST245	29	
107534	29	

X38 24 10/08/10

D2745 Manufactured No 230 Each 169.0000 8 8
Bushing

Location	Loc Qty	Loc Code
ST023	169	
52311	5	
59112	164	

X8 24 10/08/10

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Page 6

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Page 7

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Work Order ID: 60984

Parent Item: D350-636-011

Parent Item Name: Skidtube LH

Start Date: 8/03/10

Required Date: 8/12/10

Start Qty: 1.00

Required Qty: 1.00

AN3C5A Purchased No 230 Each 1,364.000 34 34



Bolt



Location Loc Qty Loc Code

ST350 1354

114330 11

115015 743

115108 300

115316 300

ST351 10

113121 10

D3537-1 Manufactured No 230 Each 13.0000 3 3



Wearpad



Location Loc Qty Loc Code

FP 1

55465 1

FP17 12

57713 3

59593 9

AN960C816L Purchased No 230 Each 23.0000 1 1



WASHER



Location Loc Qty Loc Code

ST348 23

110584 20

111424 3

x34 10/08/19

B60192 x3 10/08/19

x1 10/08/19

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Page 7

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Page 8

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Work Order ID: 60984

Parent Item: D350-636-011

Parent Item Name: Skidtube LH

Start Date: 8/03/10

Required Date: 8/12/10

Start Qty: 1.00

Required Qty: 1.00

D3492-043

Manufactured No

230

Each

51.0000

8

8



Plug Assembly

Location

Loc Qty

Loc Code

FP

2

54682

2

FP013

49

59117

1

59190

4

59421

14

60712

30

✓ 8 Jul 10/08/19

AN3C6A

Purchased

No

230

Each

425.0000

4

4



BOLT

Location

Loc Qty

Loc Code

ST351

425

11982

425

✓ 4 Jul 10/08/19

NAS1611-013

Purchased

No

230

Each

67.0000

8

8



O-RING

Location

Loc Qty

Loc Code

FP

67

114451

51

114496

16

✓ 8 Jul 10/08/19

D3535-25

Manufactured

No

230

Each

24.0000

1

1



Wearshoe

Location

Loc Qty

Loc Code

FP18

24

59623

24

✓ 1 Jul 10/08/19

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Page 8

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

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Work Order ID: 60984

Parent Item: D350-636-011

Parent Item Name: Skidtube LH

Start Date: 8/03/10

Required Date: 8/12/10

Start Qty: 1.00

Required Qty: 1.00

D3794-1 Manufactured No 230 Each 19.0000 1 1



Gasket

Location Loc Qty Loc Code

FP010

19

57942

18

59627

1

x1 10/08/10

MS21043-6 Purchased No 230 Each 726.0000 4 4



NUT

Location Loc Qty Loc Code

ST301

726

12314

726

x4 10/08/10

D3493-1 Manufactured No 260 Each 55.0000 2 2



Washer

Location Loc Qty Loc Code

ST065

55

59127

25

60873

30

2

MS21083C8 Purchased No 260 Each 58.0000 1 2



NUT

Location Loc Qty Loc Code

ST303

58

113845

7

114934

51

10/8/10

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Page 10

August 3, 2010 2:54:33 PM

Work Order ID: 60984

Parent Item: D350-636-011

Parent Item Name: Skidtube LH

Start Date: 8/03/10

Required Date: 8/12/10

Start Qty: 1.00

Required Qty: 1.00

AN8C21A

Purchased No

260 Each

59.0000

2

2



BOLT



10/8/19sf

Location

Loc Qty

Loc Code

ST345

59

113558

19

114653

40

2

AN960C816L

Purchased No

260 Each

23.0000

1

2



WASHER



10/8/19sf

Location

Loc Qty

Loc Code

ST348

23

110584

20

111424

3

2

D3672-1

Manufactured No

230 Each

1,011.000

4

4



Phenolic Washer



Location

Loc Qty

Loc Code

ST077

993

51674

5

22505

988

ST117

18

34470

18

XJ MK 10/08/19

D2741

Manufactured No

260 Each

22.0000

1

1



Blade, 350 Skidtube



10/8/19sf

Location

Loc Qty

Loc Code

ST466

22

55905

2

57949

20

/

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Page 10

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Page 11

August 3, 2010 2:54:33 PM

Work Order ID: 60984



Parent Item: D350-636-011



Parent Item Name: Skidtube LH

Start Date: 8/03/10

Required Date: 8/12/10

Start Qty: 1.00

Required Qty: 1.00

6 D3532-1



Spacer

Manufactured No

260

Each

33.0000

2

2



10/8/1998

Location

Loc Qty

Loc Code

ST068

33

59426

11

60510

22

2

6 D3672-13



Phenolic Washer

Purchased

No

260

Each

844.0000

2

2



10/8/1998

Location

Loc Qty

Loc Code

ST077

844

54363

844

2

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Page 11

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

8

7

6

5

4

3

2

1

QTY -041	QTY -042	QTY -043	QTY -044	PART NUMBER	DESCRIPTION
X				D2750-041	350 SKIDTUBE ASSEMBLY, LH
	X			D2750-042	350 SKIDTUBE ASSEMBLY, RH
		X		D2750-043	350 SKIDTUBE ASSEMBLY, LH
			X	D2750-044	350 SKIDTUBE ASSEMBLY, RH
1	1	1	1	D2739	WEB
8	8	8	8	D2743	SPACER
1	1	1	1	D2744	CAP
8	8	8	8	D2745	BUSHING
1				D2750-1	SKIDTUBE WELDMENT, LH
	1			D2750-2	SKIDTUBE WELDMENT, RH
		1		D2750-3	SKIDTUBE WELDMENT, LH
			1	D2750-4	SKIDTUBE WELDMENT, RH
1		1		D3488-041	BLADE FITTING, LH
	1		1	D3488-042	BLADE FITTING, RH
4	4	4	4	D3490-1	SPACER
4	4			D3490-3	SPACER
		4	4	D3490-5	SPACER
8	8	8	8	D3492-041	PLUG ASSEMBLY
8	8			D3492-043	PLUG ASSEMBLY
		8	8	D3492-045	PLUG ASSEMBLY
1	1	1	1	D3535-25	WEARSHOE
1	1	1	1	D3536-25	GASKET
3	3	3	3	D3537-1	WEARPAD
8	8	8	8	D3631-1	WASHER
1	1	1	1	D3791-1	WEARPLATE
1	1	1	1	D3793-1	WEARSHOE
1	1	1	1	D3793-3	WEARSHOE
1	1	1	1	D3794-1	GASKET
1	1	1	1	D3794-3	GASKET
38	38	38	38	ALS4-1032-225	INSERT (OR ALS7-1032-225, AKS4-1032-225, AELS-1032-225)
34	34	34	34	AN3C5A	BOLT
4	4	4	4	AN3C6A	BOLT
4	4	4	4	AN8C44A	BOLT
1	1	1	1	AN8C35A	BOLT
38	38	38	38	AN960C10L	WASHER
1	1	1	1	AN960C816L	WASHER
4	4	4	4	MS21043-6	NUT
1	1	1	1	MS21083C8	NUT
4	4	4	4	NAS1515H3L	WASHER

GENERAL NOTES:

- MATERIAL: MAKE D2750-1/-2/-3/-4 FROM D2600-3 EXTRUSION (INITIAL LENGTH = 120.0).
- FINISH:
ACID ETCH, ALONDE ASSEMBLY PER DART QSI 005 4.1 PRIOR TO INSTALLING D2739 WEB.
POWDER COAT WHITE (REF. 4.3.5.1) PER DART QSI 005 4.3
BLACK ANTI-SKID PAINT AS INDICATED TO 1.0 ABOVE SKIDTUBE CENTER-LINE PER DART 005 4.4 (OPTIONAL).
- TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- UNITS: INCHES UNLESS OTHERWISE NOTED
- BREAK SHARP EDGES: N/A
- IDENTIFICATION: N/A
- WEIGHT: D2750-041/-042/-043/-044 = 26.5 LBS
- WELD PER DART QSI 004
- INSTALL ALS4-1032-225 INSERTS AFTER FINISH AS INDICATED. DRILL 'F' SIZE HOLES ($\phi 0.297$) FOR WEARSHOE INSERTS
- FINAL CONFIGURATION SHOULD HAVE THE FOLLOWING MINIMUM MECHANICAL PROPERTIES:
MINIMUM YIELD TENSILE STRENGTH = 35 KSI
MINIMUM ULTIMATE TENSILE STRENGTH = 38 KSI
- SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES "LPS-3" AFTER FINISH AND AFTER INSTALLATION OF INSERTS.
COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF
POWDER COATING WITH MEK DEGREASER.
- SPACER AND PLUG INSTALLED SAME AS SECTION AJ-AJ EXCEPT HORIZONTAL
- SPACER AND PLUG INSTALLED SAME AS SECTION AP-AP EXCEPT HORIZONTAL

6098
10-8-03
NO
WORK ORDER
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6098

F	INCORPORATE DSI 9413; QTY (3) D3537-1 WAS QTY (5) (ZN C8-1); D3791-1/-3 REPLACES D3535-1/-35 (ZN C8-1); D3794-1/-3 REPLACES D3536-1/-35 (ZN B8-1); ADD D3791-1 (ZN C8-1); WEARSHOE HOLES UNDER FWD/AFT SADDLE REMOVED (8 PL). WEARSHOE HARDWARE QTY UPDATED (ZN B8-1); D3488-041/-042 HARDWARE UPDATED (ZN C1-8, 9, 10, 11); ADD NOTE 12 AND 13 (ZN A6-1); REASON: REF. NCR 08-043	PH	08.07.16
E	CHANGE TO STAINLESS STEEL WEARPLATES; ADD RUBBER GASKETS, CHANGE INSERTS; ADD D3631-1; REMOVE QTY (38) NAS1515H3L; REMOVE QTY (10) NAS1515H8L; REMOVE D2741, QTY (2) AN960C816; REMOVE QTY (2) MS21083C8	CB	07.05.17
D	ADD HOLES AND SPACERS FOR APICAL FLOATS; INCORPORATE DEO 9133/9157	PH	06.01.05
C	ADD D2750-3/D2750-4; INCORPORATE D2738 AND D2740	CP	98.11.18
B	CHANGE MS24694-S293 TO AN8-16A	CP	98.09.01
A	NEW ISSUE	DS	98.04.16
REV	DESCRIPTION	BY	DATE
DESIGN	RA	DART AEROSPACE USA, INC.	
DRAWN	RAH	PORT HADLOCK, WA	
CHECKED	AS	DRAWING NO.	REV. F
MFG. APPR.	AS	D2750	SHEET 1 OF 11
APPROVED	AS	TITLE	SCALE
DE APPR.	AS	350 SKIDTUBE ASSEMBLY	NTS
DATE	08.07.16	COPYRIGHT © 1998 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	

8

7

6

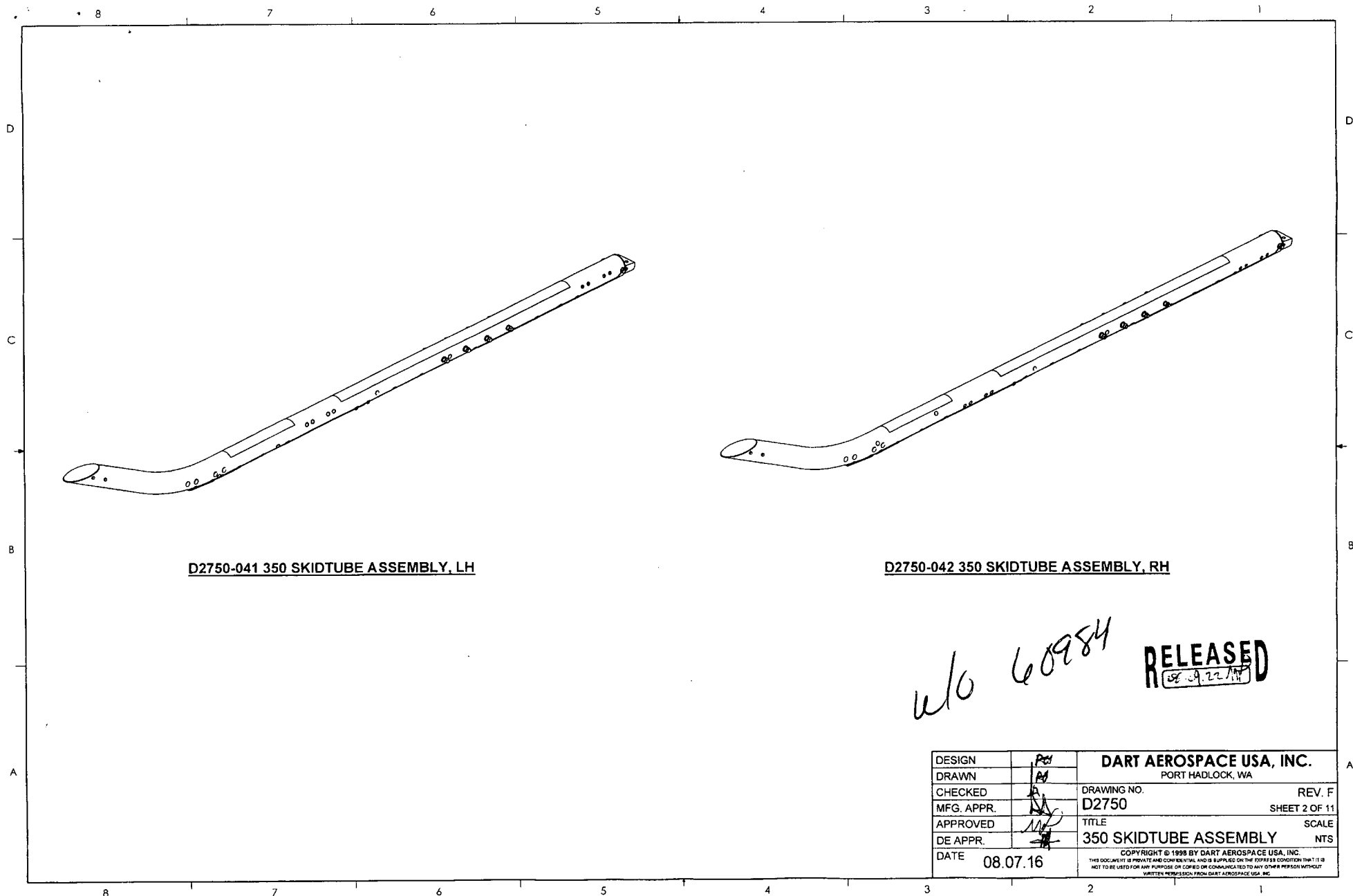
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4

3

2

1



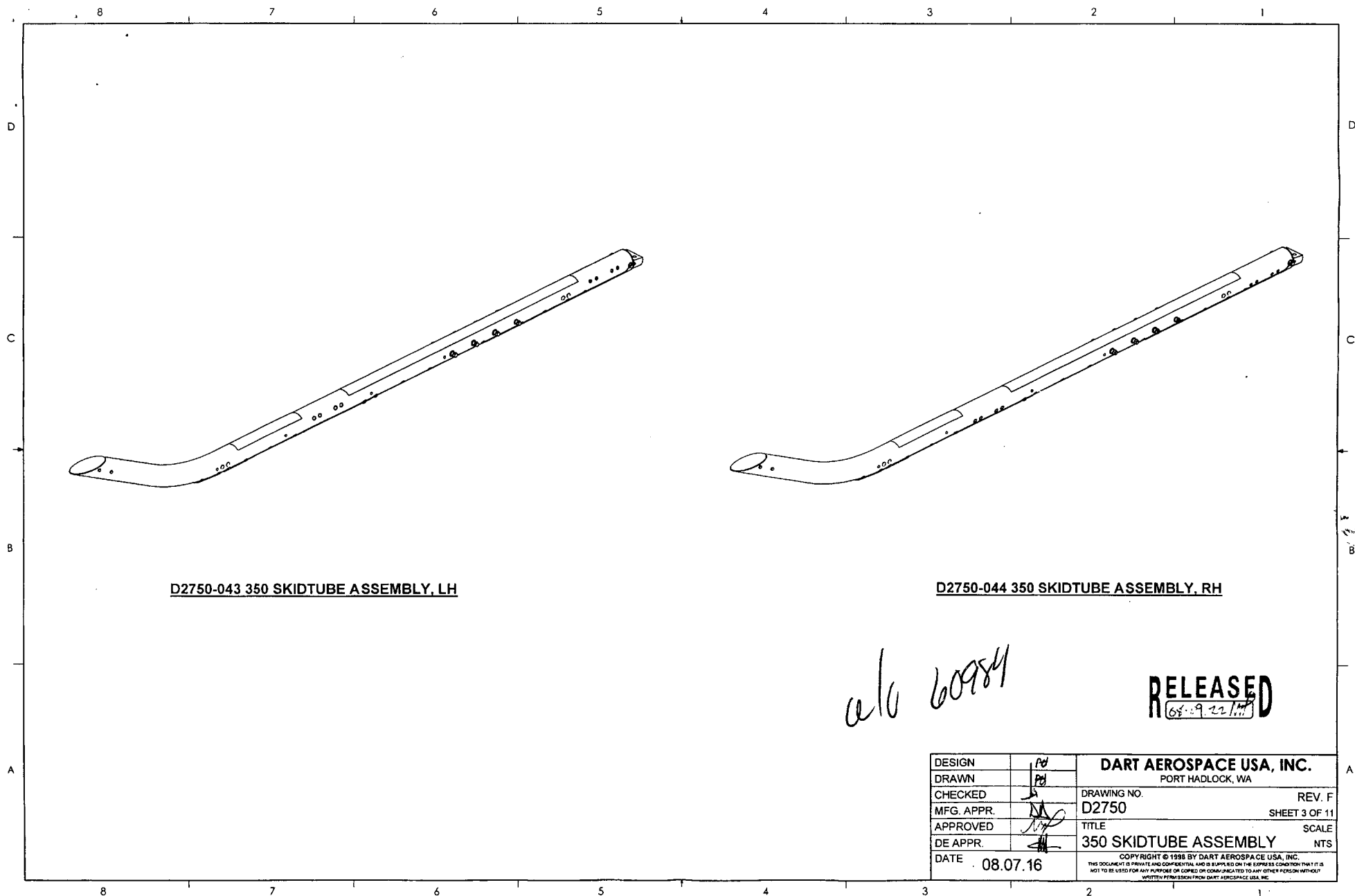
D2750-041 350 SKIDTUBE ASSEMBLY, LH

D2750-042 350 SKIDTUBE ASSEMBLY, RH

w/o 60984

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08.09.22

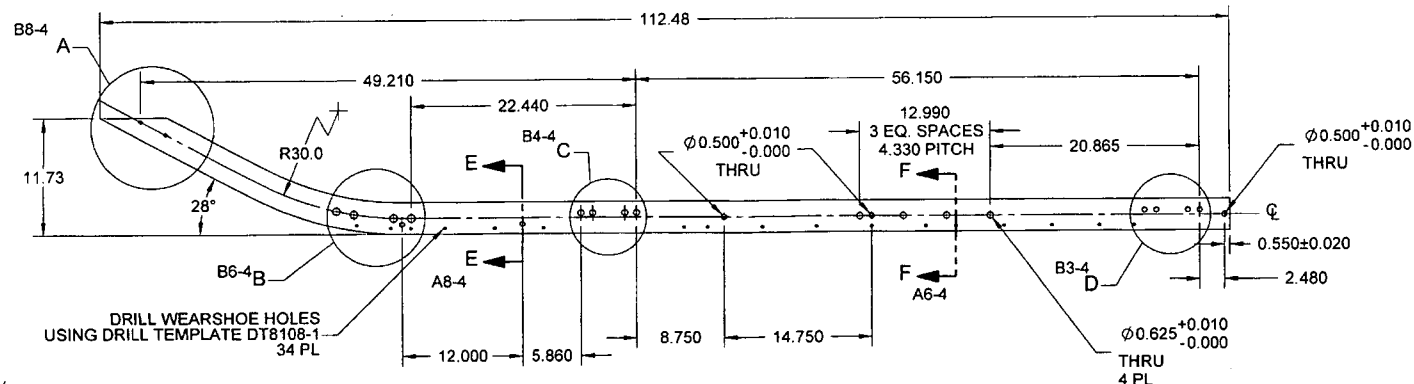
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DRAWN	AM		
CHECKED	AM	DRAWING NO.	REV. F
MFG. APPR.	AM	D2750	SHEET 2 OF 11
APPROVED	AM	TITLE	SCALE
DE APPR.	AM	350 SKIDTUBE ASSEMBLY	NTS
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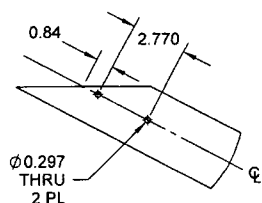
also 60984

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08-09-22/11

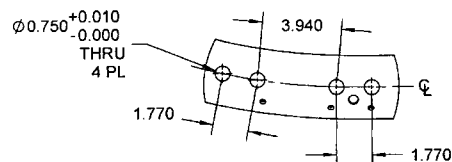
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DRAWN	<i>PD</i>		
CHECKED	<i>NA</i>	DRAWING NO.	REV. F
MFG. APPR.	<i>NA</i>	D2750	SHEET 3 OF 11
APPROVED	<i>NA</i>	TITLE	SCALE
DE APPR.	<i>NA</i>	350 SKIDTUBE ASSEMBLY	NTS
DATE	08.07.16	<small>COPYRIGHT © 1988 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.</small>	



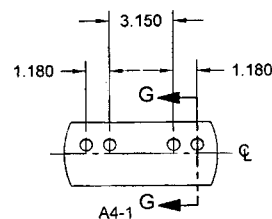
D2750-1 LH SKIDTUBE



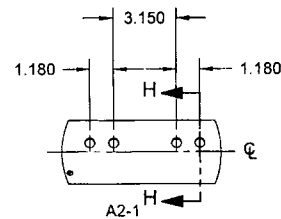
DETAIL A
SCALE 2X



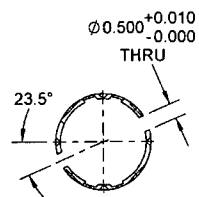
DETAIL B
SCALE 2X



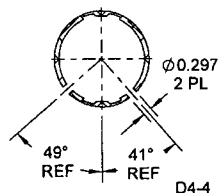
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SCALE 2X



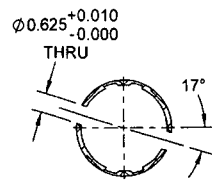
DETAIL D
SCALE 2X



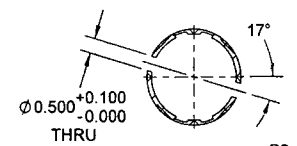
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SCALE 3X, 2 PL



SECTION F-F
SCALE 3X, 17 PL



SECTION G-G
SCALE 3X, 4 PL



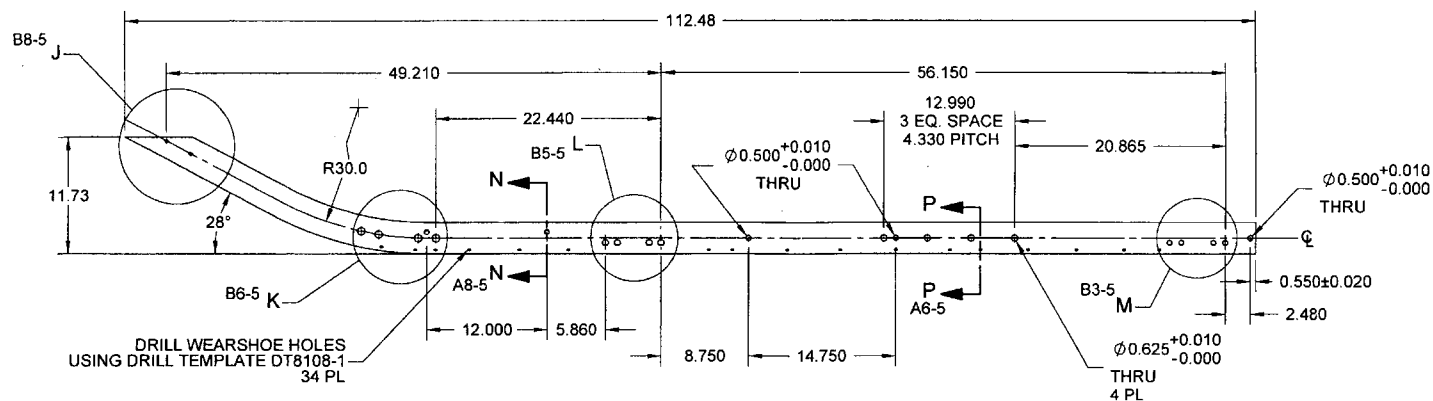
SECTION H-H
SCALE 3X, 4 PL

w/o 60984

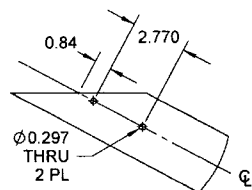
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CHECKED	PM	DRAWING NO. D2750	REV. F
MFG. APPR.	PM	SHEET 4 OF 11	
APPROVED	PM	TITLE	SCALE
DE APPR.	PM	350 SKIDTUBE ASSEMBLY	
DATE	08.07.16	NTS	

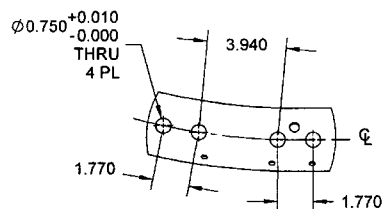
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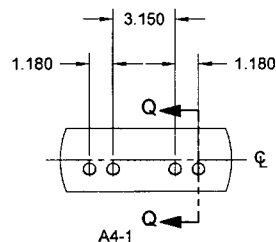
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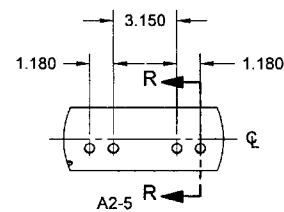
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DETAIL K
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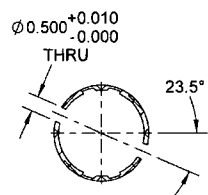


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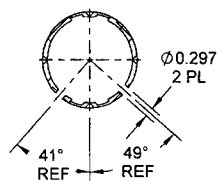


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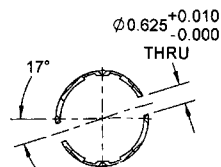
WU 60789



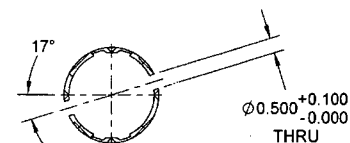
SECTION N-N
SCALE 3X, 2 PL



SECTION P-P
SCALE 3X, 17 PL



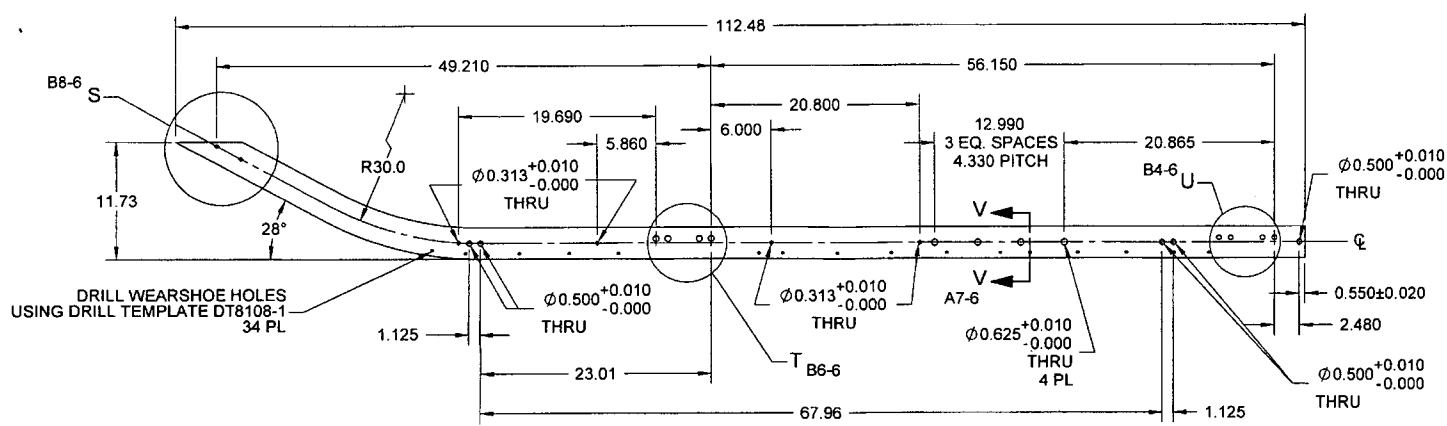
SECTION Q-Q
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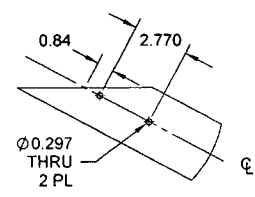
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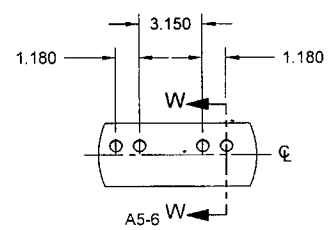
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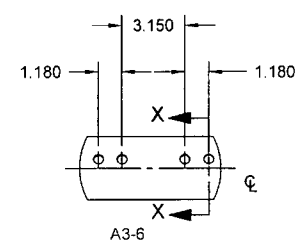
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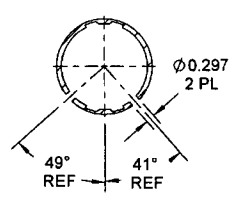
DETAIL S
SCALE 2X
D8-6



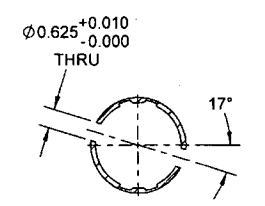
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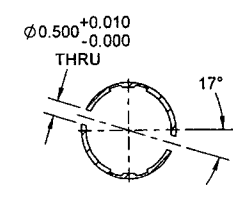
DETAIL U
SCALE 2X
D3-6



SECTION V-V
SCALE 3X, 17 PL
C4-6



SECTION W-W
SCALE 3X, 4 PL
B6-6

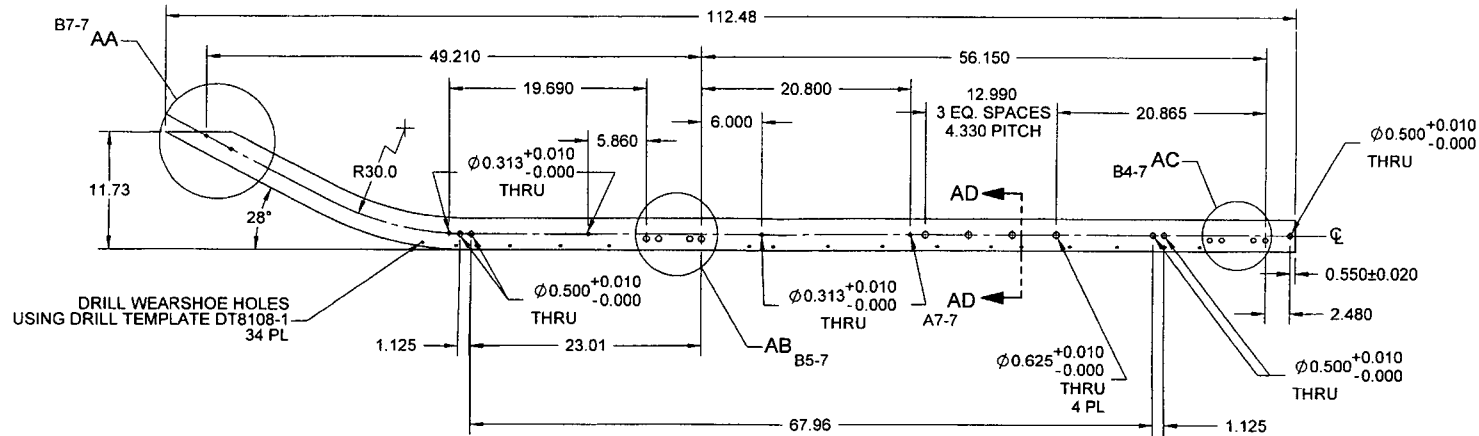


SECTION X-X
SCALE 3X, 4 PL
B4-6

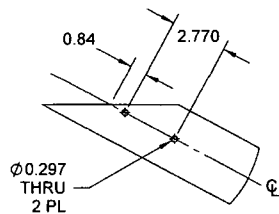
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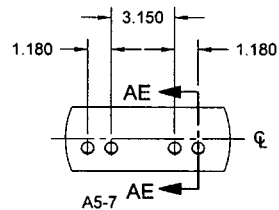
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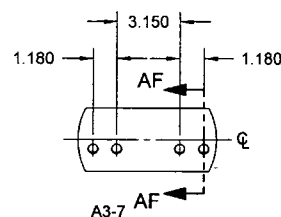
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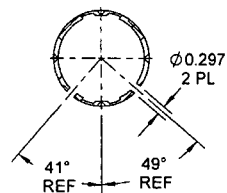
DETAIL AA
SCALE 2X



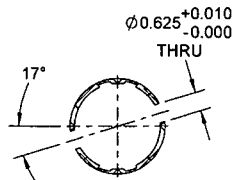
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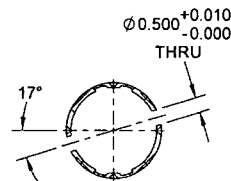
DETAIL AC
SCALE 2X



SECTION AD-AD
SCALE 3X, 17 PL



SECTION AE-AE
SCALE 3X, 4 PL

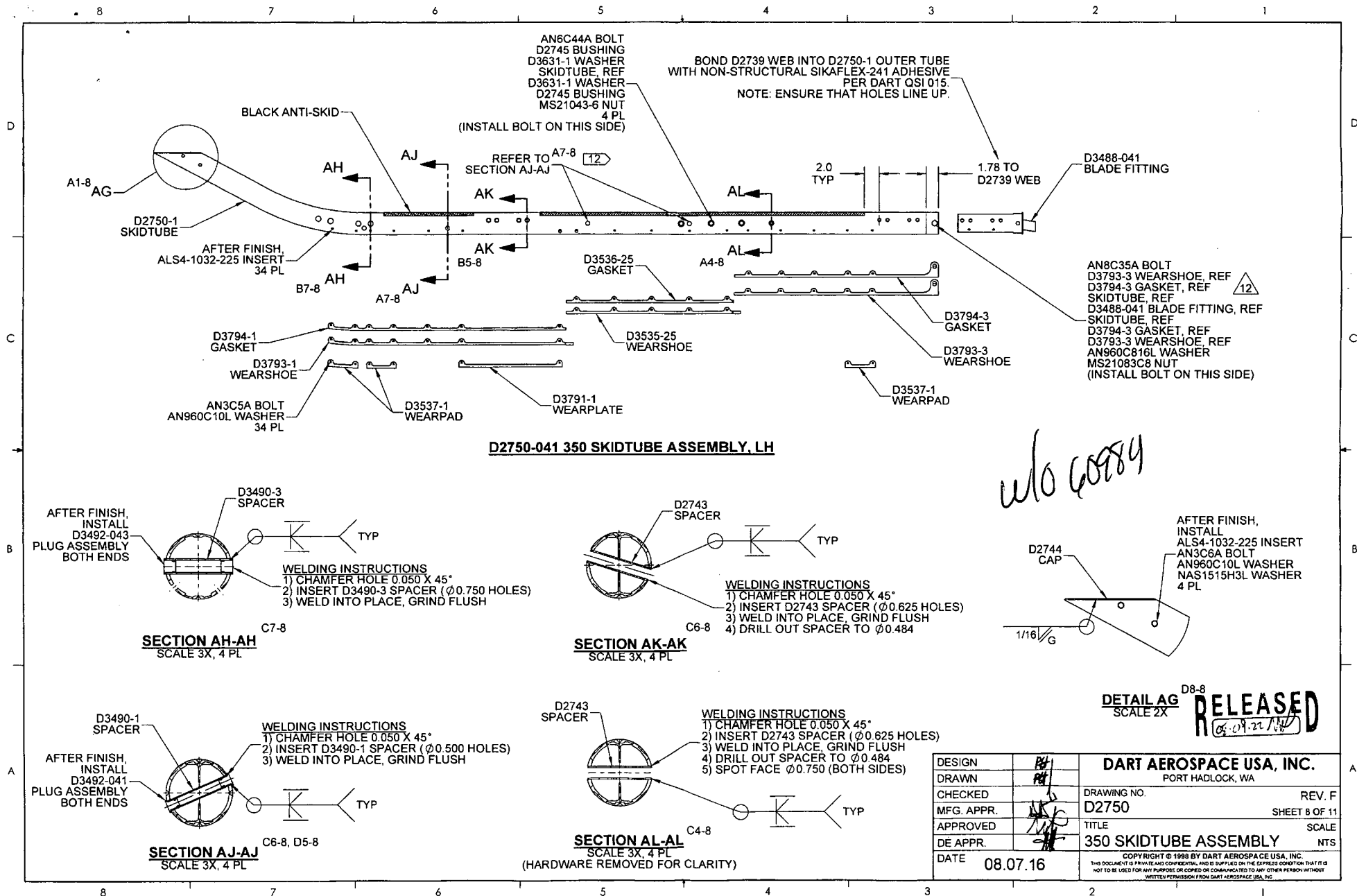


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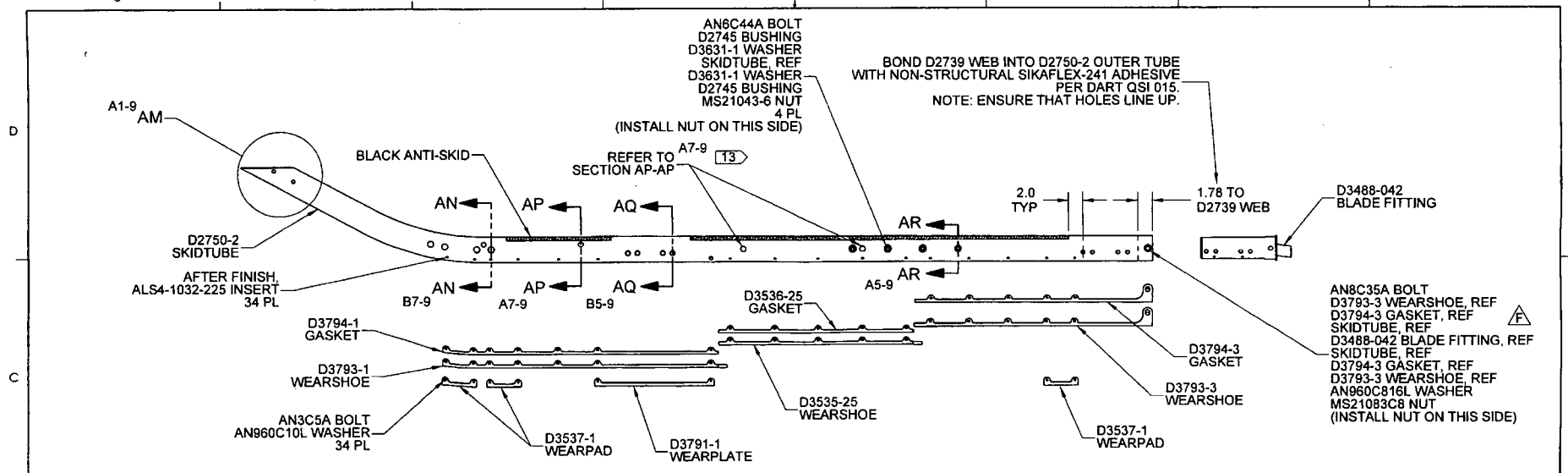
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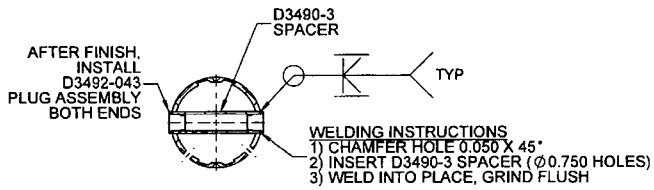


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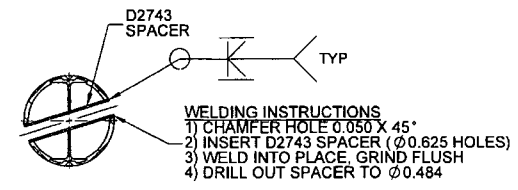


D2750-042 350 SKIDTUBE ASSEMBLY, RH

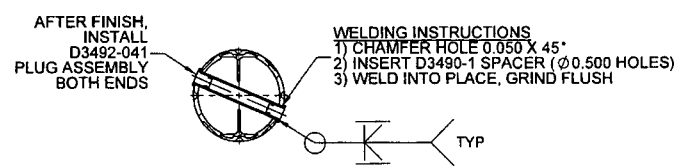
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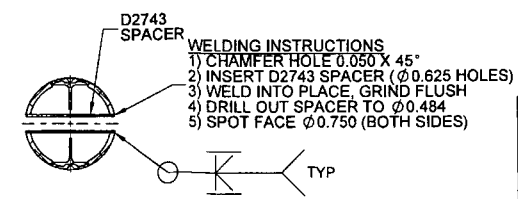
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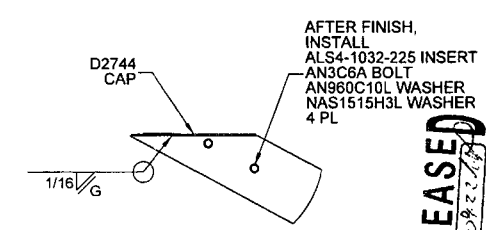
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SECTION AP-AP
SCALE 3X, 4 PL



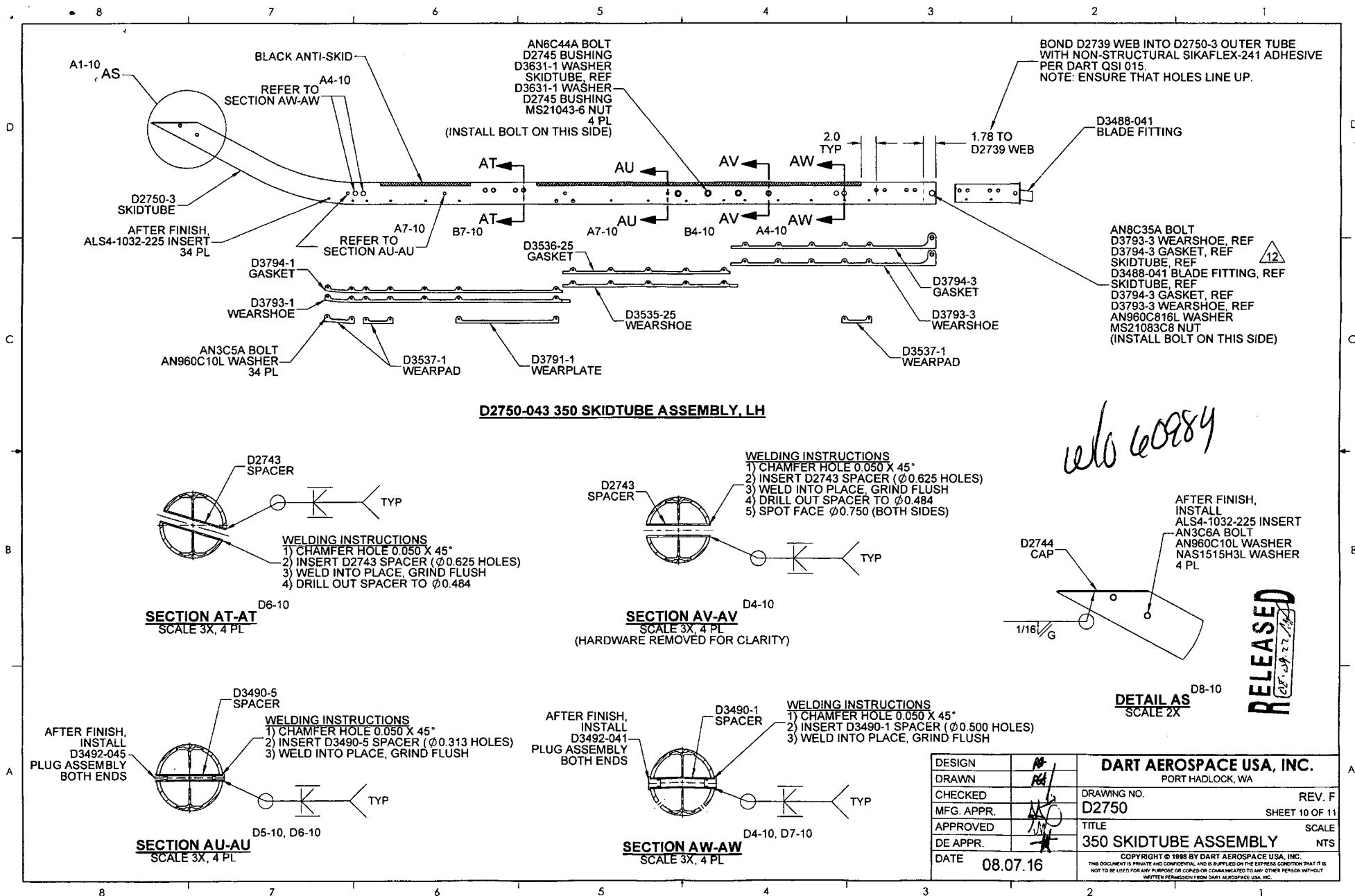
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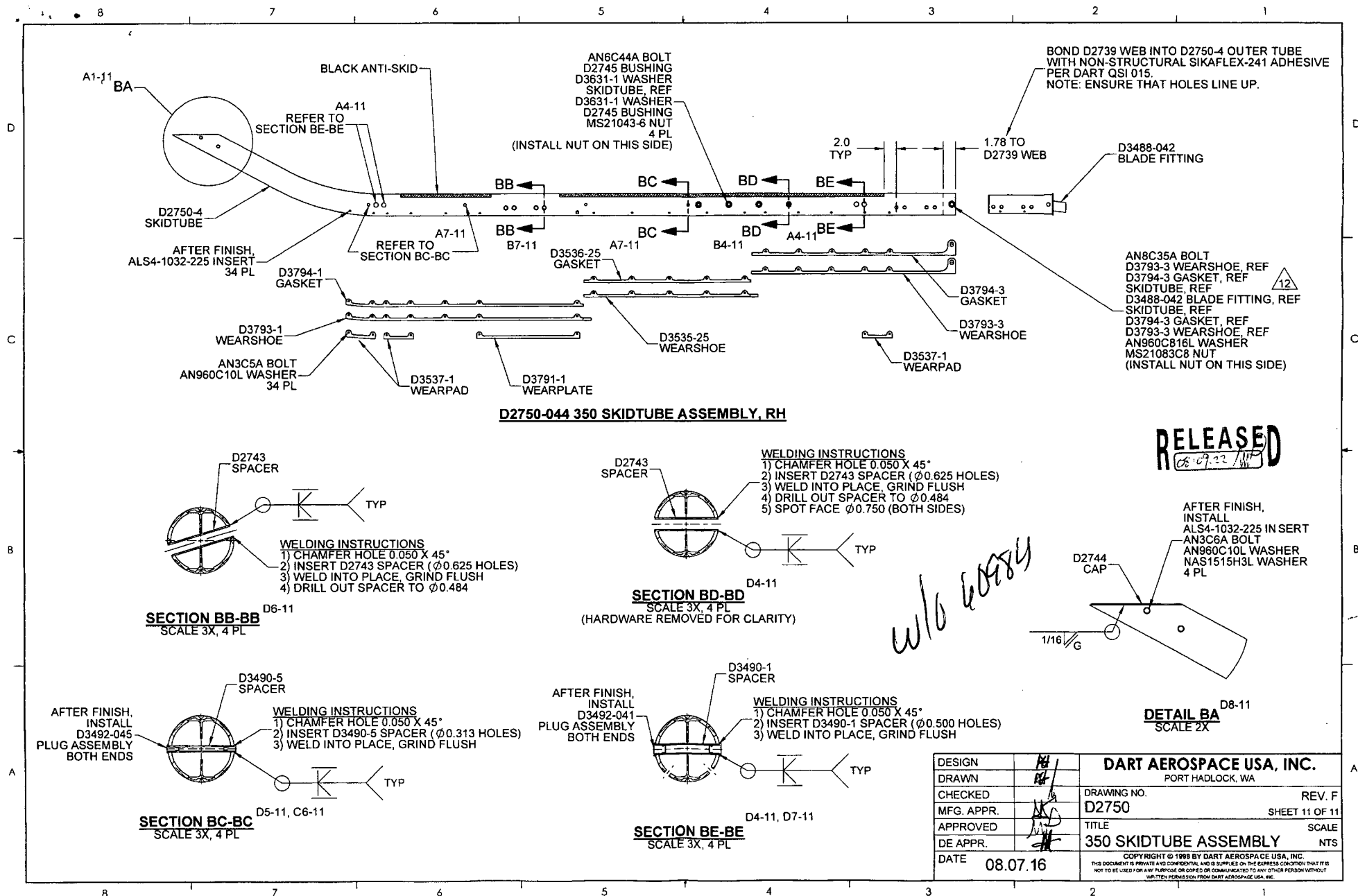


DETAIL AM
SCALE 2X

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08-09-23-18

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NO. 234

AWS D17.1.2001
QUALIFICATION TEST RECORD

Name: Barclay Elliott
Job number: 59818
Part number: D350-626-011
Description: 350 skid tube
Welding Process: Tig[☒] Mig[]
Base material: Aluminium
Current: AC[☒] DC[]

TEST REQUIREMENTS AND RESULTS

Visual:
Penetration:

pass[☒] fail[]
pass[☒] fail[]

UNACCEPTABLE

Cracks:
Undercut:
Pin holes:
Overlap (cold lap)
Porosity (surface):
Coloration:

pass[☒] fail[]
pass[☒] fail[]
pass[☒] fail[]
pass[☒] fail[]
pass[☒] fail[]
pass[☒] fail[]

Qualifier P. D. A. Date of Test Coupon 10-06-21
Welder Barclay Elliott Date of Test Coupon 10-06-21

The above named individual is qualified in accordance with AWS D17.1.2001 to weld